

General

Guideline Title

Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures.

Bibliographic Source(s)

National Institute for Health and Care Excellence (NICE). Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. London (UK): National Institute for Health and Care Excellence (NICE); 2015 Sep. 9 p. (Clinical guideline; no. 64).

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Centre for Clinical Practice. Prophylaxis against infective endocarditis. Antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. London (UK): National Institute for Health and Clinical Excellence (NICE); 2008 Mar. 107 p. (Clinical guideline; no. 64).

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Note from the National Guideline Clearinghouse (NGC): In 2008 the National Institute for Health and Care Excellence published a guideline (CG64) on prophylaxis against infective endocarditis. This 2015 guideline on the same topic updates and replaces the 2008 publication. See the "Availability of Companion Documents" field for the full version of the 2008 guideline and the guideline addendum (providing the 2015 guideline update methods and evidence).

No new recommendations have been added for this update. For recommendations marked as [2015] the evidence has been reviewed but no change has been made to the recommended action.

The wording used in the recommendations in this guideline (for example, words such as 'offer' and 'consider') denotes the certainty with which the recommendation is made (the strength of the recommendation) and is defined at the end of the "Major Recommendations" field.

Adults and Children with Structural Cardiac Defects at Risk of Developing Infective Endocarditis

Healthcare professionals should regard people with the following cardiac conditions as being at risk of developing infective endocarditis:

- Acquired valvular heart disease with stenosis or regurgitation

- Hypertrophic cardiomyopathy
- Previous infective endocarditis
- Structural congenital heart disease, including surgically corrected or palliated structural conditions, but excluding isolated atrial septal defect, fully repaired ventricular septal defect or fully repaired patent ductus arteriosus, and closure devices that are judged to be endothelialised
- Valve replacement [2015]

Patient Advice

Healthcare professionals should offer people at risk of infective endocarditis clear and consistent information about prevention, including:

- The benefits and risks of antibiotic prophylaxis, and an explanation of why antibiotic prophylaxis is no longer routinely recommended
- The importance of maintaining good oral health
- Symptoms that may indicate infective endocarditis and when to seek expert advice
- The risks of undergoing invasive procedures, including non-medical procedures such as body piercing or tattooing [2015]

Prophylaxis Against Infective Endocarditis

Antibiotic prophylaxis against infective endocarditis is not recommended:

- For people undergoing dental procedures
- For people undergoing non-dental procedures at the following sites¹:
 - Upper and lower gastrointestinal tract
 - Genitourinary tract; this includes urological, gynaecological and obstetric procedures, and childbirth
 - Upper and lower respiratory tract; this includes ear, nose and throat procedures and bronchoscopy [2015]

Chlorhexidine mouthwash should not be offered as prophylaxis against infective endocarditis to people at risk of infective endocarditis undergoing dental procedures. [2015]

¹The evidence reviews for this guideline covered only procedures at the sites listed in this recommendation. Procedures at other sites are outside the scope of the guideline.

Infection

Any episodes of infection in people at risk of infective endocarditis should be investigated and treated promptly to reduce the risk of endocarditis developing. [2015]

If a person at risk of infective endocarditis is receiving antimicrobial therapy because they are undergoing a gastrointestinal or genitourinary procedure at a site where there is a suspected infection, the person should receive an antibiotic that covers organisms that cause infective endocarditis. [2015]

Definitions

Strength of Recommendations

Some recommendations can be made with more certainty than others. The Committee makes a recommendation based on the trade-off between the benefits and harms of an intervention, taking into account the quality of the underpinning evidence. For some interventions, the Committee is confident that, given the information it has looked at, most people would choose the intervention. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

Recommendations That Must (or Must Not) Be Followed

The Committee usually uses 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally 'must' (or 'must not') is used if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Recommendations That Should (or Should Not) Be Followed – a 'Strong' Recommendation

Recommendations that an intervention should be used are made when the Committee is confident that for the vast majority of patients, an intervention will do more good than harm, and be cost effective. Similarly, the Committee recommends that an intervention should not be used when confident that an intervention will not be of benefit for most patients.

Recommendations That Could Be Followed

Recommendations that an intervention could be used are made when the Committee is confident that an intervention will do more good than harm for most patients, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the patient's values and preferences than for a strong recommendation, and so the healthcare professional should spend more time considering and discussing the options with the patient.

Clinical Algorithm(s)

A National Institute for Health and Care Excellence (NICE) care pathway titled "Prophylaxis Against Infective Endocarditis" is available from the [NICE Web site](#) .

Scope

Disease/Condition(s)

Infective endocarditis

Guideline Category

Prevention

Risk Assessment

Treatment

Clinical Specialty

Cardiology

Dentistry

Family Practice

Infectious Diseases

Internal Medicine

Obstetrics and Gynecology

Preventive Medicine

Surgery

Intended Users

Advanced Practice Nurses

Dentists

Health Care Providers

Hospitals

Managed Care Organizations

Patients

Physician Assistants

Physicians

Guideline Objective(s)

To offer best practice advice on antimicrobial prophylaxis against infective endocarditis before an interventional procedure for adults and children in primary dental care, primary medical care, secondary care and care in community settings

Target Population

- Adults and children with known underlying structural cardiac defects, including those who have previously had infective endocarditis, who are undergoing interventional procedures
- Adults and children who have previously had infective endocarditis (irrespective of whether they have a known underlying cardiac defect), who are undergoing interventional procedures

Note: This guideline does not cover people at increased risk of infective endocarditis who do not have structural cardiac defects (such as intravenous drug users).

Interventions and Practices Considered

1. Assessment of patients for risk of developing infective endocarditis based on presence of structural cardiac defects
2. Provision of information regarding prevention to people at risk of infective endocarditis
3. Investigation and treatment of any episodes of infection in people at risk of infective endocarditis

Note: Antibiotic prophylaxis and chlorhexidine mouthwash prophylaxis against infective endocarditis were considered but not recommended.

Major Outcomes Considered

- Risk of dental and other interventional procedures causing infective endocarditis
- Risk of antibiotics prescribed for prophylaxis causing serious adverse events (for example anaphylaxis, in 'at risk' population)
- Mortality and/or morbidity (for example congestive cardiac failure)
- Health-related quality of life
- Resource use and costs
- Cost-effectiveness of antimicrobial (principally antibiotic) prophylaxis against infective endocarditis in people undergoing interventional procedures

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): In 2008 the National Institute for Health and Care Excellence published a guideline (CG64) on prophylaxis against infective endocarditis. This 2015 guideline on the same topic updates and replaces the 2008 publication. See the

"Availability of Companion Documents" field for the full version of the 2008 guideline and the guideline addendum (providing the 2015 guideline update methods and evidence).

This guideline update was developed based on the process and methods described in The Manual 2014 (see the "Availability of Companion Documents" field). Where there are deviations from the process and methods, these are clearly stated in the [Interim clinical guideline surveillance process and methods guide 2013](#) .

Clinical Evidence

See the "Clinical Evidence Review" sections in the guideline addendum. Databases that were searched, together with the number of articles retrieved from each database for each question, are shown in Appendix D of the guideline addendum. The search strategy for each question is also shown in Appendix D.

Health Economics

A systematic literature search was undertaken to identify health economic evidence within published literature relevant to prophylaxis against infective endocarditis. The evidence was identified by conducting a broad search in the National Health Service Economic Evaluation Database (NHS EED), the Health Technology Assessment Database (HTA) and the Health Economic Evaluations Database (HEED) from 2007 (date of the last systematic review conducted for the previous version of the guideline) to 2014. The search also included Medline and EMBASE databases using an economic filter. Studies published in languages other than English were not reviewed. The search was conducted on 20 November 2014. The health economic search strategy is detailed in Appendix I of the guideline addendum.

The health economist also sought out relevant studies identified by the surveillance review, Standing Committee members, or Topic experts.

Inclusion and Exclusion Criteria

Full economic evaluations (studies comparing costs and health consequences of alternative courses of action: cost-utility, cost-effectiveness, cost-benefit and cost-consequence analyses) and comparative costing studies that address the review question in the relevant population were considered potentially includable as economic evidence.

Studies that only reported burden of disease or cost of illness were excluded. Literature reviews, abstracts, posters, letters, editorials, comment articles, unpublished studies and studies not in English were excluded.

Remaining studies were prioritised for inclusion based on their relative applicability to the development of this guideline and the study limitations. For example, if a high quality, directly applicable UK analysis was available, then other less relevant studies may not have been included. Where selective exclusions occurred on this basis, this is noted in the excluded economic studies table (Appendix K of the guideline addendum). For more details about the assessment of applicability and methodological quality see the economic evaluation checklist contained in Appendix H of *Developing NICE Guidelines: the manual 2014* (see the "Availability of Companion Documents" field).

Number of Source Documents

Clinical Evidence

The number of articles retrieved from each database for each question are shown in Appendix D of the guideline addendum (see the "Availability of Companion Documents" field). Appendix E of the guideline addendum provides a review flowchart for each of the review questions, showing the number of retrieved, included, and excluded articles for each question. A list of excluded articles with the reasons for exclusion is provided in Appendix F of the guideline addendum.

Health Economics Evidence

The search retrieved 998 articles. The titles and abstracts were screened for possible inclusion and 8 articles were selected for further examination of the full text version. An additional 5 articles from the 2008 review for this guideline were also considered for inclusion along with the original economic evaluation conducted for the 2008 guideline. An economic evaluation that was not published at the time of the literature review conducted by The University of Sheffield was also included giving a total of 15 full-text economic evaluations that were considered. Four studies were selected for inclusion in the present update including the 2008 NICE model and the 2015 Sheffield model.

A review flowchart is provided in Appendix J of the guideline addendum, and the excluded studies (with reasons for exclusion) are shown in Appendix K of the guideline addendum.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Not Given)

Rating Scheme for the Strength of the Evidence

Evidence for some of the review questions considered for this guideline was evaluated according to Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology.

Overall Quality of Outcome Evidence in GRADE

High	Further research is very unlikely to change confidence in the estimate of effect.
Moderate	Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.
Low	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.
Very low	Any estimate of effect is very uncertain.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

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See the guideline addendum for methods used for quality assessment and statistical analysis for each of the review questions. The full evidence tables and full Grading of Recommendations Assessment, Development and Evaluation (GRADE) profiles are found in Appendices G and H of the addendum.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Note from the National Guideline Clearinghouse (NGC): In 2008 the National Institute for Health and Care Excellence published a guideline (CG64) on prophylaxis against infective endocarditis. This 2015 guideline on the same topic updates and replaces the 2008 publication. See the "Availability of Companion Documents" field for the full version of the 2008 guideline and the guideline addendum (providing the 2015 guideline update methods and evidence).

This guideline update was developed based on the process and methods described in The Manual 2014 (see the "Availability of Companion Documents" field). Where there are deviations from the process and methods, these are clearly stated in the [Interim clinical guideline surveillance process and methods guide 2013](#) .

These guidelines are updated using a standing Committee of healthcare professionals, research methodologists and lay members from a range of disciplines and localities. For the duration of the update the core members of the Committee are joined by up to 5 additional members who are have specific expertise in the topic being updated, referred to as 'topic expert members'. All of the core members and the topic expert members are fully voting members of the Committee.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendations

Some recommendations can be made with more certainty than others. The Committee makes a recommendation based on the trade-off between the benefits and harms of an intervention, taking into account the quality of the underpinning evidence. For some interventions, the Committee is confident that, given the information it has looked at, most people would choose the intervention. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

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Cost Analysis

The economic evidence profiles in Section 2.6.4 of the guideline addendum (see the "Availability of Companion Documents" field) summarise cost-effectiveness estimates for infective endocarditis prophylaxis for dental and non-dental procedures. The economic evidence profiles show an assessment of the applicability and methodological quality for each economic evaluation, with footnotes indicating the reasons for the assessment. These assessments were made by the health economist using the economic evaluation checklist from Appendix H of *Developing NICE Guidelines: the manual 2014* (see the "Availability of Companion Documents" field). The economic profiles also show the incremental cost, incremental effect and incremental cost-effectiveness ratio for the base case analysis in the evaluation, as well as information about the assessment of uncertainty.

Refer to Appendix L in the guideline addendum for additional information pertaining to the economic evidence. Appendix P in the guideline addendum provides the University of Sheffield's 2015 update of the 2008 the National Institute for Health and Care Excellence (NICE) economic model on the cost-effectiveness of prophylactic antibiotic for patients at risk of infective endocarditis.

Cost-effectiveness Criteria

NICE's report Social value judgements: principles for the development of NICE guidance sets out the principles that GDGs should consider when judging whether an intervention offers good value for money. In general, an intervention was considered to be cost effective if either of the following criteria applied (given that the estimate was considered plausible):

- the intervention dominated other relevant strategies (that is, it was both less costly in terms of resource use and more clinically effective compared with all the other relevant alternative strategies), or
- the intervention cost less than £20,000 per quality-adjusted life-year (QALY) gained compared with the next best strategy

If the Committee recommended an intervention that was estimated to cost more than £20,000 per QALY gained, or did not recommend one that was estimated to cost less than £20,000 per QALY gained, the reasons for this decision are discussed explicitly in the 'Recommendations and link

to evidence' section of the relevant chapter, with reference to issues regarding the plausibility of the estimate or to the factors set out in Social value judgements: principles for the development of NICE guidance.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

The guideline was validated through two consultations.

1. The first draft of the guideline (the full guideline and National Institute for Health and Care Excellence [NICE] guideline) were consulted with Stakeholders and comments were considered by the Guideline Development Group (GDG).
2. The final consultation draft of the full guideline, the NICE guideline and the Information for the Public were submitted to stakeholders for final comments.

The final draft was submitted to the Guideline Review Panel for review prior to publication.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

The type and quality of evidence supporting each review question are described in evidence profiles in the guideline addendum (see the "Availability of Companion Documents" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- The guideline committee noted the lack of data on side effects including anaphylaxis from antibiotic prophylaxis and therefore the difficulty in establishing a balance between potential side effects and benefit of prophylaxis, if any. Furthermore, the occurrence of other effects of antibiotic usage including the risk of antibiotic resistance was noted but not covered by the evidence identified. The committee highlighted that resistance is thought to be increasing in streptococci and other pathogens but is largely dependent on the patient group and therefore difficult to quantify. The committee concluded that in the absence of clear evidence on efficacy, overuse of antibiotics should be avoided to prevent community resistance.
- Overall, there was inconsistent evidence across the studies with some studies indicating that antibiotic prophylaxis reduces the incidence of bacteraemia post-procedure but does not eliminate it.

Refer to the "Trade-off between benefits and harms" sections in the guideline addendum (see the "Availability of Companion Documents" field) for benefits of specific interventions.

Potential Harms

Refer to the "Trade-off between benefits and harms" sections in the guideline addendum (see the "Availability of Companion Documents" field) for harms of specific interventions.

Qualifying Statements

Qualifying Statements

- Healthcare professionals are expected to take National Institute for Health and Care Excellence (NICE) clinical guidelines fully into account when exercising their clinical judgement. However, the guidance does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of each patient, in consultation with the patient and/or their guardian or carer.
- For all recommendations, NICE expects that there is discussion with the person about the risks and benefits of the interventions, and their values and preferences. This discussion aims to help them to reach a fully informed decision (see also the 'Patient-centred care' section in the original guideline document).

Implementation of the Guideline

Description of Implementation Strategy

Piloting and Implementation

It is beyond the scope of the work to pilot the contents of this guideline or validate any approach to implementation. These limitations excepted, every effort has been made to maximise the relevance of recommendations to the intended audience through the use of a guideline development group (GDG) with relevant professional and patient involvement, by use of relevant experienced expert reviewers and the stakeholder process facilitated by the National Institute for Health and Care Excellence (NICE) Short Clinical Guidelines Technical Team. Implementation support tools for this guideline will be available from the Implementation Team at NICE.

Audit Methods

The guideline recommendations have been used to develop clinical audit criteria for use in practice. Audit criteria are essential implementation tools for monitoring the uptake and impact of guidelines and thus need to be clear and straightforward for organisations and professionals to use.

NICE has commissioned the Clinical Accountability, Service Planning and Evaluation (CASPE) Research Unit and Health Quality Service (HQS) to develop the audit criteria for all its guidance as part of its implementation strategy.

Implementation Tools

Audit Criteria/Indicators

Clinical Algorithm

Foreign Language Translations

Mobile Device Resources

Patient Resources

Resources

Slide Presentation

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

National Institute for Health and Care Excellence (NICE). Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. London (UK): National Institute for Health and Care Excellence (NICE); 2015 Sep. 9 p. (Clinical guideline; no. 64).

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2008 Mar (revised 2015 Sep)

Guideline Developer(s)

National Institute for Health and Care Excellence (NICE) - National Government Agency [Non-U.S.]

Source(s) of Funding

National Institute for Health and Care Excellence (NICE)

Guideline Committee

Guideline Development Group (GDG)

NICE Clinical Guidelines Update Team

Composition of Group That Authored the Guideline

Guideline Development Group Members (2008): Professor David Wray (*Chair*), Professor of Oral Medicine; Mr Danny Keenan, Consultant Cardiothoracic Surgeon; Dr Deborah Franklin, Consultant Paediatric Dentist; Dr John Gibbs, Consultant Cardiologist; Dr Jonathan Sandoe, Consultant Microbiologist; Dr Kathy Orr, Consultant Microbiologist; Dr Martin Fulford, General Dental Practitioner; Dr Nicholas Brooks, Consultant Cardiologist; Mr Nick Cooley, Antibiotic Pharmacist; Dr Richard Oliver, Senior Lecturer and Honorary Consultant in Oral Surgery; Ms Suzannah Power, Patient representative; Ms Anne Keatley-Clarke, Patient representative

Standing Committee Core Members (2015): Damien Longson (*Chair*), Consultant Liaison Psychiatrist, Manchester Mental Health and Social Care Trust; Catherine Briggs, GP, Principal, Bracondale Medical Centre, Stockport; John Cape, Director of Psychological Therapies Programme, University College London; Alun Davies, Professor of Vascular Surgery and Honorary Consultant Surgeon, Charing Cross & St Mary's Hospital & Imperial College NHS Trust; Alison Eastwood, Senior Research Fellow, Centre for Reviews and Dissemination, University of York; Sarah Fishburn, Lay Member; Jim Gray, Consultant Medical Microbiologist, The Birmingham Children's Hospital NHS Foundation Trust; Kath Nuttall, Director, Lancashire & South Cumbria Cancer Network (- April 2013); Tilly Pillay, Consultant Neonatologist, Staffordshire, Shropshire and Black Country Newborn Network, Royal Wolverhampton Hospitals Trust; Nick Screaton, Radiologist, Papworth Hospital NHS Foundation Trust; Lindsay Smith, Principal in General Medical Practice, Somerset; Philippa Williams, Lay Member; Sophie Wilne, Paediatric Oncologist, Nottingham Children's Hospital

Topic Expert Committee Members (2015): Richard Balmer, Paediatric Dentist, University of Leeds; Mark Dayer (non-voting expert witness), Consultant Cardiologist, Taunton & Somerset NHS Trust; Valentina Gallo, Epidemiologist, University of London; Alison Loescher, Dentist, University of Sheffield; Suzannah Power, Lay Member; Craig Ramsay (non-voting expert witness), Professor of Healthcare Assessment, University of Aberdeen; Jon Sandoe, Consultant Microbiologist, Leeds Teaching Hospital NHS Trust; Richard Watkin, Consultant Cardiologist, Good Hope Hospital, Birmingham

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Clinical Guidelines Update Team (2015): Phil Alderson, Clinical Advisor; Emma Banks, Co-ordinator; Paul Crosland, Health Economist; Nicole Elliott, Associate Director; Sarah Glover, Information Specialist; Cheryl Hookway, Technical Analyst; Susannah Moon, Programme Manager; Rebecca Parsons, Project Manager; Nitara Prasanman, Technical Analyst; Charlotte Purves, Administrator; Toni Tan, Technical Adviser; Allan Wailoo, Professor of Health Economics and Director of NICE Decision Support Unit, University of Sheffield

Financial Disclosures/Conflicts of Interest

See Appendix B of the guideline addendum (see the "Availability of Companion Documents" field) for a listing of the authors' declarations of interest.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Centre for Clinical Practice. Prophylaxis against infective endocarditis. Antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. London (UK): National Institute for Health and Clinical Excellence (NICE); 2008 Mar. 107 p. (Clinical guideline; no. 64).

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the [National Institute for Health and Care Excellence \(NICE\) Web site](#) . Also available in eBook and ePub formats from the [NICE Web site](#) .

Availability of Companion Documents

The following are available:

- Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Full guideline. London (UK): National Institute for Health and Care Excellence; 2008 Mar. 107 p. (Clinical guideline; no. 64). Available from the [National Institute for Health and Care Excellence \(NICE\) Web site](#) .
- Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Appendices. London (UK): National Institute for Health and Care Excellence; 2008 Mar. 227 p. (Clinical

- guideline; no. 64). Available from the [NICE Web site](#) .
- Prophylaxis against infective endocarditis. Guideline addendum. Methods, evidence and recommendations. London (UK): National Institute for Health and Care Excellence; 2015 Sep. 492 p. (Clinical guideline; no. 64.1). Available from the [NICE Web site](#) .
 - Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Costing report. London (UK): National Institute for Health and Care Excellence; 2008 Mar. 22 p. (Clinical guideline; no. 64). Available from the [NICE Web site](#) .
 - Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Costing template. London (UK): National Institute for Health and Care Excellence; 2008 Mar. (Clinical guideline; no. 64). Available from the [NICE Web site](#) .
 - Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Slide set. London (UK): National Institute for Health and Care Excellence; 2008 Apr. 12 p. (Clinical guideline; no. 64). Available from the [NICE Web site](#) .
 - Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Audit support. London (UK): National Institute for Health and Care Excellence; 2008 Jun. 10 p. (Clinical guideline; no. 64). Available from the [NICE Web site](#) .
 - Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Baseline assessment tool. London (UK): National Institute for Health and Care Excellence; 2015 Sep. (Clinical guideline; no. 64). Available from the [NICE Web site](#) .
 - Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Questions and answers. London (UK): National Institute for Health and Care Excellence; 2008 Mar. (Clinical guideline; no. 64). Available from the [NICE Web site](#) .
 - Developing NICE guidelines: the manual 2014. London (UK): National Institute for Health and Care Excellence (NICE); 2014 Oct. Available from the [NICE Web site](#) .

Patient Resources

The following is available:

- Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. Information for the public. London (UK): National Institute for Health and Care Excellence; 2008 Mar. 5 p. (Clinical guideline; no. 64). Available from the [National Institute for Health and Care Excellence \(NICE\) Web site](#) . Also available in eBook and ePub formats from the [NICE Web site](#) . Also available in Welsh from the [NICE Web site](#) .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This NGC summary was completed by ECRI Institute on December 1, 2009. The currency of the guideline was reaffirmed by the developer in 2011 and this summary was updated by ECRI Institute on October 30, 2013. This summary was updated by ECRI Institute on December 11, 2015.

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